

## LOGLINE GEAR CHARACTERISTICS LOG

This log contains detailed questions about the gear fished; use it to document the use and configuration of all hook and line gears. This includes longline gear as well as other line fishing methods not commonly used, but periodically deployed (e.g. rod and reel, handline, troll line). There are differences in the protocols for recording the characteristics of longline gear compared with other line fishing gears.

### Demersal Longline (Bottom Longline, Tub Trawl)

Changes in gear configuration (i.e. number of hooks, number of floats, distance between gangions, mainline material, *etc.*) requires the completion of a new Longline Gear Characteristics Log.

### Pelagic Longline

Changes in numbers of items used such as hooks and floats are factored into the estimated average and do not require a separate Longline Gear Characteristics Log. A change in gear configuration (i.e. use of light sticks, hooks between floats or fishing depth) towards another target species does require the completion of a new Longline Gear Characteristics Log.

Example: The first two hauls use gears ("strings") with light sticks and target swordfish. Number these gears "1" and record their characteristics on a single Longline Gear Characteristics Log. The remaining five hauls do not use lightsticks and target big-eye tuna. Complete a second gear log numbered gear number "2".

### Other Line Fishing Gears

For other line fishing gears, complete only the following fields on the Longline Gear Characteristics Log; A, B, D, 1, 2, 5-9, 16-18, 30-33. For these gears, assign each separate physical gear its own gear number. If there are physical gears with the same configuration used, complete only one Longline Gear Characteristics Log and record the consecutively assigned numbers of all gears with the same configuration.

If a gear is set out and hauled more than once during a trip, do not complete a new Longline Gear Characteristics Log for the multiple hauls. Rather,

record on the Longline Haul Log, which gear number is being hauled.

In addition, record any other information necessary to understand the manner in which the gear was set/hauled in COMMENTS.

If information is unavailable or unknown to any question except a "No/Yes" question, record a dash (-) in the field. If the answer to a "No/Yes" question is unknown, record a "9", on the line next to the code for "No" to indicate that the field was not skipped, but the answer is unknown. If a field relates to a question to which you previously answered "No", leave the field blank.

Become familiar with the following definitions.

### DEFINITIONS

**Handline:** A weight, leader, and at least one hook that may be baited, attached to a line. Handlines are not always held during fishing (e.g. rod and reel).

**Troll line:** One or more lines with hooks and bait or lures attached, that are towed behind a moving boat.

**Longline:** A mainline ("the string") with spaced gangion lines attached which have baited hooks on the free end. The mainline is divided into sections of hook and float arrangements which are distinguished by a high flyer, radio beacon, or beeper buoy.

**This may include multiple "tubs" of gear tied together.**

**Section:** Each portion of the entire longline string beginning with a high flyer, radio beacon, or beeper buoy and ending with the next high flyer, radio beacon, or beeper buoy.

**Dropline:** A line that connects the floats on the water's surface to the mainline. This may also be called a floatline and is not generally used in the Northeast demersal longline fishery.

**Gangion:** A line and hook attached to the mainline. Gangions may vary in length and have up to 2 swivels, one below an AK snap (if present) and possibly another one above the hook. Fishermen may sometimes refer to these as leaders.

**Leader:** A relatively short section of mono or steel

wire placed between a swivel and the hook. It reduces bite offs, makes hook replacement easier and helps to maintain gangion length. **Leader lengths should not be included in any gangion measurements.**

## DEMERSAL LONGLINE

**Gear:** A longline string composed of one or more "tubs", uniquely configured for a specific target species.

Example: See GEAR NUMBER (#1).

## PELAGIC LONGLINE

**Gear:** A longline string composed of several sections and supported in the water column by various sized floats, uniquely configured for a specific target species.

## ROD AND REEL and TROLLED GEARS

**Gear:** An individual line with hooks and bait attached.

## INSTRUCTIONS

For instructions on completing the Header Fields **A**, **B**, and **D**, refer to the Common Haul Log Data section of the NEFSC Observer Program Manual.

**1. GEAR NUMBER:** Record the consecutive number assigned to each uniquely configured gear hauled and for which characteristics are described. See the introduction and definitions for more information on defining and numbering gears.

Example: There are 5 rod and reels on the vessel, 4 of which are identical. The 5<sup>th</sup> rod and reel has one additional hook. This would require the completion of 2 separate gear characteristic logs, one for gear #'s 1, 2, 3, and 4 and one for gear # 5.

Example: If there are 3 longline strings and 2 rod and reels the proper way of numbering these gears is #'s 1 - 5 (i.e. there should only be **ONE** gear # 1)

**2. NUMBER OF HOOKS:** Record the **TOTAL** number of individual hooks set in this gear.

**3. NUMBER OF SECTIONS:** Record the num-

ber of sections in this gear.

**NOTE:** In the demersal longline fishery one section may consist of several "tubs" of gear tied together.

**4. SECTION LENGTH:** Record the average length of a section in this longline gear to the nearest tenth of a nautical mile. This value can be calculated by dividing the average mainline length by the average **NUMBER OF SECTIONS (#3)** fished.

## MAINLINE

**5. NUMBER OF STRANDS:** Record the number of strands used in the mainline material.

**NOTE:** If "multi-strand" and the strands are not counted then record a dash (-) and **COMMENT**.

**6. DIAMETER:** Record, to the nearest tenth of a millimeter, the diameter of the mainline.

**7. TEST:** Record, in whole pounds, the test, or dry breaking strength, of the mainline. This information may be obtained from the captain.

**8. MATERIAL:** Record the material of the mainline by placing an "X" next to the appropriate code:

- 0 = Unknown.
- 1 = Monofilament Nylon.
- 2 = Cotton.
- 3 = Steel Wire.
- 4 = Multi-strand Nylon.
- 9 = Other, record the mainline material on line 8A.

**9. COLOR:** Record the color of the mainline by placing an "X" next to the appropriate code:

- 00 = Unknown.
- 01 = Clear.
- 02 = White.
- 03 = Pink.
- 04 = Black.
- 05 = Green.
- 06 = Blue.
- 07 = Multi-color, record all mainline colors on line 9A.
- 08 = Red.
- 99 = Other, record the mainline color on line 9A.

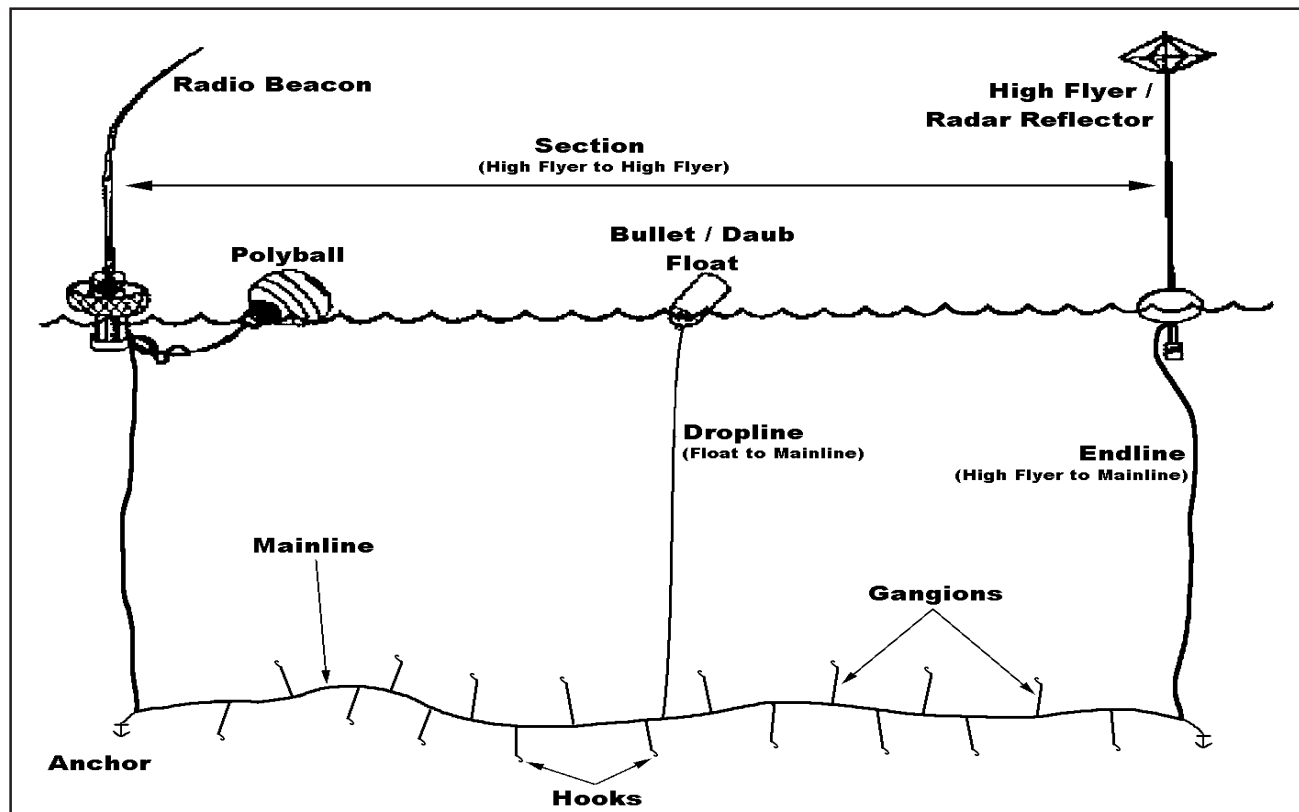


Figure 1. Characteristics of demersal and/or pelagic longline fishing gear.

## FLOATS

**10. USED?:** Record whether floats of each type listed (unknown, polyball, bullet/daub and other), are used on this gear by placing an "X" next to the appropriate code:

0 = No.

1 = Yes.

**NOTE:** If "other" float types are used, record the float type(s) in COMMENTS.

**11. NUMBER:** Record the number of each float type used.

**12. AVERAGE NUMBER OF HOOKS BETWEEN:** Record the average number of hooks between each float type used.

**NOTE:** If floats are only used at the beginning and the end of the string then this value should equal the total NUMBER OF HOOKS (#2).

## ANCHOR

**13. USED?:** Record whether any anchor(s) is (are)

used on this gear by placing an "X" next to the appropriate code:

0 = No.

1 = Yes.

**14. WEIGHT:** Record, in whole pounds, the **total** weight of the anchor(s) used to hold this gear in place. This information may be obtained from the captain.

**15. WEIGHT - ACTUAL OR ESTIMATED:** Record whether the weight recorded in #14 is an actual or estimated weight by placing an "X" next to the appropriate code:

1 = Actual.

2 = Estimated.

## HOOKS

**NOTE:** Primary describes the most used hook type, and secondary describes the second most used hook type.

**16. BRAND:** Record the brand names of the primary and secondary hooks used in this gear. This information may usually be found on the box in which

the hooks were purchased, or obtained from the captain. If there is no secondary hook type used, record a dash (-). If there is a third hook type used, record its brand in COMMENTS.

Example: Mustad®; see Figure 2.

**17. MODEL/PATTERN NUMBER:** Record the model or pattern number of the primary and secondary hooks used in this gear. This information may usually be found on the box in which the hooks were purchased, or obtained from the captain. If there is no secondary hook type used, record a dash (-). If there is a third hook type used, record its model/pattern number in COMMENTS.

Example: 39963WS.

**NOTE:** If possible record the hook type (circle hook, J-hook, etc.) in COMMENTS.

**18. SIZE:** Record the size of the primary and secondary hooks used in this gear. This information may usually be found on the box in which the hooks were purchased, or obtained from the captain. If there is no secondary hook type used, record a dash (-). If there is a third hook type used, record its size in COMMENTS.

Example: 13/0.

## DROPLINES

**NOTE:** In the demersal longline fishery droplines are not typically used.

**19. LENGTH:** Record, in whole feet, the average length of the droplines used in this gear. This information may be obtained from the captain. If droplines are not used record a dash (-).

**20. DISTANCE BETWEEN:** Record, to the nearest foot, the distance between droplines.

**21. NUMBER OF RADIO BEACONS:** Record the number of radio beacons. These may also be called "radio buoys" or "beepers".

**22. NUMBER OF RADAR REFLECTORS:** Record the number of radar reflectors. These may also be called "high flyers".

## GANGIONS

**23. DISTANCE BETWEEN:** Record, in whole feet,

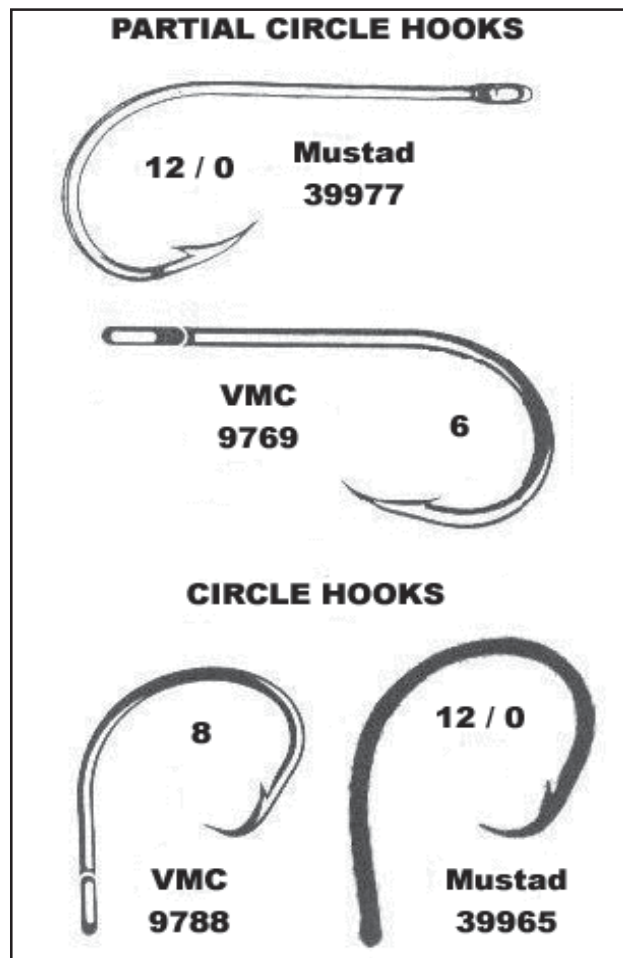


Figure 2. Common hook types seen in Northeast demersal longline fishery.

the **average** distance along the mainline between gangions used in this gear. This information may be obtained from the captain.

**24. DIAMETER:** Record, to the nearest tenth of a millimeter, the diameter of the gangions used in this gear. This information may be obtained from the captain.

**25. TEST:** Record, in whole pounds, the test, or dry breaking strength, of the gangions used in this gear.

**26. LENGTH:** Record, to the nearest foot, the lengths of the gangions, for up to two different lengths. If there are more than two different lengths of gangions used, record the other lengths in COMMENTS. Gangion length does not include the leader length.

**27. COUNT:** Record the number of gangions for each length used.

**28. MATERIAL:** Record the material of the gangions, by placing an "X" next to the appropriate code:

- 0 = Unknown.
- 1 = Monofilament Nylon.
- 2 = Cotton.
- 4 = Multi-strand Nylon.
- 9 = Other, record the gangion material on line 28A.

**29. COLOR:** Record the color of the gangions used in this gear by placing an "X" next to the appropriate code:

- 00 = Unknown.
- 01 = Clear.
- 02 = White.
- 03 = Pink.
- 04 = Black.
- 05 = Green.
- 06 = Blue.
- 08 = Red.
- 98 = Combination, record all gangion colors on line 29A.
- 99 = Other, record the gangion color on line 29A.

## LEADERS

**30. USED?:** Record whether leaders are used between the gangions and the hooks by placing an "X" next to the appropriate code:

- 0 = No.
- 1 = Yes.

**31. LENGTH:** Record, in whole feet, the length of the leaders used in this gear.

**32. TEST:** Record, in whole pounds, the test, or dry breaking strength, of the leaders used in this gear. This information may be obtained from the captain.

**33. MATERIAL:** Record the material of the leaders used in this gear by placing an "X" next to the appropriate code:

- 0 = Unknown.
- 1 = Monofilament Nylon.
- 3 = Steel Wire.
- 9 = Other, record the leader material on line

33A.

## SWIVELS

**34. SWIVELS USED?:** Indicate whether swivels are used on the gangions by placing a "X" next to the appropriate code:

- 0 = No
- 1 = Yes

## 35. NUMBER OF SWIVELS PER GANGION:

Record the number of swivels used per gangion. One is generally located below the AK-SNAP and if leader is used, another swivel will also be used.

Example: 1 swivel per 1 gangion should be written as 1 / 1.

## LIGHT STICKS

**36. USED?:** Record whether light sticks are used on this gear by placing an "X" next to the appropriate code:

- 0 = No.
- 1 = Yes.

**37. COLOR:** Record the color of the light sticks used on this gear by placing an "X" next to the appropriate code:

- 00 = Unknown.
- 02 = White.
- 03 = Pink.
- 05 = Green.
- 06 = Blue.
- 08 = Red.
- 09 = Orange.
- 10 = Purple.
- 98 = Combination, record all colors on line 37A.
- 99 = Other, record the light stick color on line 37A.

**38. NUMBER OF LIGHTSICKS:** Record the average number of lightsticks used on this gear.

## COMMENTS

Record any additional information about this gear. If more room is needed, use the back of this log, making sure to write "See Back" on the front of the log. Reference each comment with its corresponding field name.